

WHAT IS CLAIMED:

1. An endoscope system with a disposal sheath, including an permanent endoscope which can be reused for many times and a disposal sheath; wherein the capsule covers the outside of the endoscope as a part of the disposal sheath, connects the disposal channel which is inserted into the endoscope channel, both the anterior ends of the capsule and the disposal channel are connected and joined in a whole body; characterized in that a fluid-air exit and a sucking channel adapter are set on posterior endoscope, sheathe and connect a fluid-air channel adapter and sucking channel adapter of the disposal sheath respectively, the fluid-air channel can be a single cavity or double cavities channels; the fluid-air channel is set on outside of the endoscope; and parallel with the endoscope; the capsule, as the main body of the disposal sheath, covers the outside of the endoscope joining the jet channel and the fluid-air channel via the end cap on the anterior end of capsule to form a whole body; the disposal sheath covers the outer surface of the endoscope body and the inner surface of the endoscope channel as well; the posterior capsule connects a locking ring; after passing through the endoscope channel, the disposal channel is positioned in the three-way sealing cap via the guide tube; after the use, the channel orifice of the disposal channel can be heated and melted and cut off by a heat fusion forceps, to form a blocked V-shape.

2. The endoscope system with a disposal sheath, according to the claim1, characterized in that the end cap is made of transparent material or partial elastic transparent thin membrane, its inner end face's shape coincides with anterior end face of the endoscope body, the disposal channel connects in the endoscope channel at axial direction in anterior endoscope's site of the end cap, the end cap's surrounding is sheathed in anterior capsule.

3. The endoscope system with a disposal sheath, according to the claim 2, characterized in that said the connection between the disposal channel and the end cap is via a channel seat or a turn-over outwards' adapter which is produced on the disposal channel tip.

4. The endoscope system with a disposal sheath, according to the claim1, characterized in that the capsule is made from elastic, flexible thin wall nonpoisonous, non-immune, biocompatible and lubricant or lubricated material, the anterior capsule covers the posterior end cap's surrounding, the posterior capsule connects the locking ring, the locking ring the upper and lower oblique teeth and the handle of the locking ring can make the capsule fix or loose the endoscope , and can be tight locked up or unlocked by handle.

5. The endoscope system with a disposal sheath, according to the claim1, characterized in that the fluid-air channel can be made from double cavities channel, in its interior section which sheathe on the jet channel has no any septum, in order to convenient to sheathe the jet channel: Inside the later part of the double cavity channel has a septum, and the anterior septum at the back of the jet channel is a round head which curve rate as same as the channel cavity, and at two sides of the later part of the round head respectively has one incision, making the septum swing towards any one direction, using for to block the channel which flowing fluid needs not to flow into; the two cavities of the posterior end of the structure of double cavity fluid-air channel sheathe on two rigid connecting tubes respectively, between these two tubes has a welding pad piece, the posterior end of rigid connecting tubes again connect with two fluid-air channels adapters.

6. The endoscope system with a disposal sheath, according to the claim1, the fluid-air channel may be a single cavity structure which came from two single cavity channels join in together one channel at nearing the jet channel site, and the channel shape may be cylinder or flat; or the structure of two single cavity fluid-air channels via heat pressure become flat channel and parallel with each other and form thin wall channels, and can be inflated and expanded into cylinders while injecting into fluid or air.

7. The endoscope system with a disposal sheath, according to the claim1, characterized in that the three-way

sealing cap is made of elastic medical material, its anterior end is fixed on the endoscope channel exit, its straight cavity is the way for inserting medical instrument and tight fixing the disposal channel; its side exit is a sucking channel adapter which connects the sucking channel, in the three-way sealing cap set three elastic sealing orifices, to elastically sealing the disposal channel at the guide tube's assistance.

8. The endoscope system with a disposal sheath, according to the claim7, characterized in that the temporary guide tube can be sheathed in the three-way sealing cap, in advance, for sheathing the disposal channel in, which diameter is quite large; the guide tube consists of a tube body with a handle, guide tube core, a long orifice, and a orientation pin, the long orifice is symmetrically set in the tube body to allow the orientation pin crossed the guide tube core to slide forward and backward in it; the distance between the handle end face and posterior end of the long orifice is equal to the distance between the upper orifice of the three-way sealing cap and lower end face of the third elastic sealing orifice, the long orifice's length is more than the distance between the lower end of the guide tube and the first elastic sealing orifice of the three-way sealing cap; while the handle end face closes to the upper orifice of the three-way sealing cap, the orientation pin of tube core is pushed over the third elastic sealing orifice by the posterior end of the guide tube wall's long orifice, so that the tube core's lower end orientates to inferior to the second elastic sealing orifice; while the three-way sealing cap is installed on the endoscope, the tube core's lower end makes the posterior end of the disposal channel which is higher than the sucking channel orifice, being pressed to under the sucking channel orifice to prevent the sucking channel orifice from block; while pulling out the guide tube, although the guide tube's lower end is extracted out the first elastic sealing orifice, due to the space provided by the long orifice's length, the tube core's lower end cannot raise the disposal channel because the orientation pin of tube core is yet sited under the third elastic sealing orifice, and the disposal channel instantly is tight contracted and fixed, while all of the guide tube is pulled out, the disposal channel is closed up again and fixed by the second elastic sealing orifice, make the posterior end put in right position of the three-way sealing cap.

9. The endoscope system with a disposal sheath, according to the claim1, characterized in that a V-shape electric resistance thread is on one piece of two pieces of heat fusion forceps, another piece has an insulation board, wherein one piece can move to all the channel orifice, and tight contact with electric resistance thread, the channel orifice is cut into different V-shapes according to different electric resistance thread's shapes of the forceps orifice.

10. The endoscope system with a disposal sheath, according to the claim1, characterized in that the traction forceps can pull the disposal channel out the endoscope channel, one piece of forceps is a cylinder structure, the other piece is a half bucket size; while two pieces of the forceps orifice are closed, they can keep maximal contacting area with the channel wall, on forceps handle a teeth locking apparatus is set.